















NCLM Wireless Technology Forum

Charlotte's Perspective on Wireless Infrastructure Permitting

March 27, 2017



Charlotte Welcomes Utility Investments

Charlotte Fundamentally Welcomes Utility Investments

- Purposes of a city is to connect people economically, culturally, and socially
- CDOT's Mission "Connecting Charlotte"
 - Great transportation assets
 - Great places for gathering and social exchange
 - Robust and reliable utility infrastructure
- History of progress in cities can be told through the development of utilities that allow cities to thrive
- Future is in the connected "smart city"



Utility Regulation in Charlotte

Charlotte's R/W Utility Ordinance

- Ordinance adopted in 2007
- Developed in partnership with Charlotte's utility partners
- Goal was to facilitate utility permitting process in the right-of-way
- Built around administrative "Standards and Provisions"
- Unanimously supported for adoption





Utility Right of Way Management Program Standards and Provisions March 10, 2017

The following standards and provisions are intended to provide reasonable parameters to the owners of public and private utility facilities located in the existing street Right-of-Way (R/W). As of January 1, 2008, these standards govern the installation, upgrade, relocation and maintenance of all utility facilities Please note that the adoption of these standards is not a mandate on Utility Companies to improve their existing systems to meet the defined standards. However, the City's expectation is that Utility Companies will comply with the standards on all future installation, upgrade, relocation and maintenance projects.

The City recognizes that the manner in which past facilities may have been installed varied depending on the environmental and economic conditions of any given location. The City further understands that accommodations may need to be made depending on the specifics of a given project. Therefore, it is the intent of the City to work closely with the Utility Companies to find a mutually agreeable solution to all reasonable requests when the standards and applicable conditions pose unique challenges. Finally, please note that quicker review times can be expected when projects have no or few deviations from the standards.

Administrative

1.0 General

.1. All utility construct (CDOT wDirect

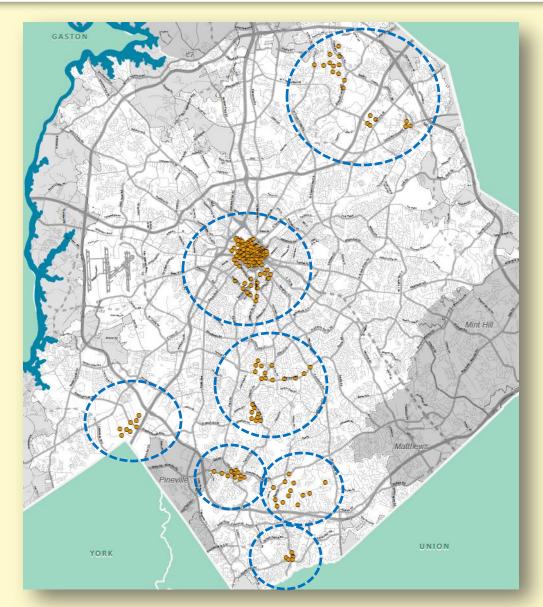
ires a Utility R/W

- 1.1.1. The permit application must be submitted by the Utility Company, and then CDOT has 20 working days to respond. This timeframe applies to standard submissions for new installation requests, unless the City determines that extraordinary factors warrant a longer review period. Existing facility maintenance timeframes will be determined by CDOT on a case-by-case basis.
- 1.1.2. Construction should not occur or be scheduled to occur before the review is complete and an application is approved.
- 1.1.3. CDOT may determine, on a case-by-case basis, that a Pre-Construction Conference is warranted.
- 1.1.4. A copy of the Permit must be kept at the construction site.
- .1.5. As a condition of the Permit, CDOT must be notified 48 hours prior to the <u>actual</u> start of work.
- 1.1.6. As a condition of the Permit, CDOT's Street Maintenance Division must be notified 24 hours prior to the actual start of work when the pavement is to be cut.
- 1.2. North Carolina General Statutes (NCGS) § 89 Article 8A, known as the "Underground Utility Safety and Damage Prevention Act" (as modified from time to time), applies to all construction covered by Permits issued by the City of Charlotte.

Page 1 of 11



DAS Permits Citywide

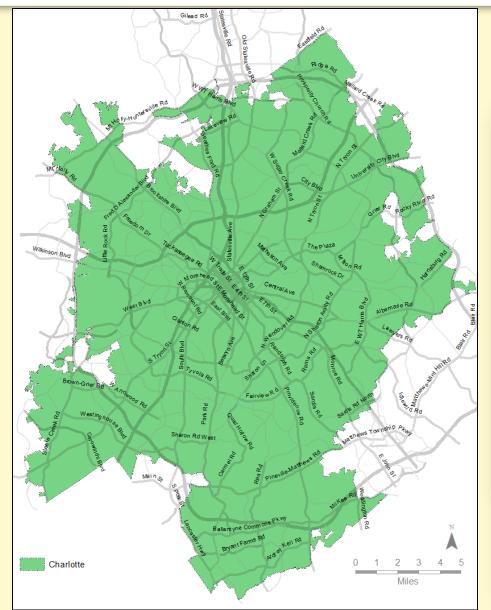


Permit Activity

- 204 Permits approved todate
- 4 Have been a problem



Lots of Room for Small Cell

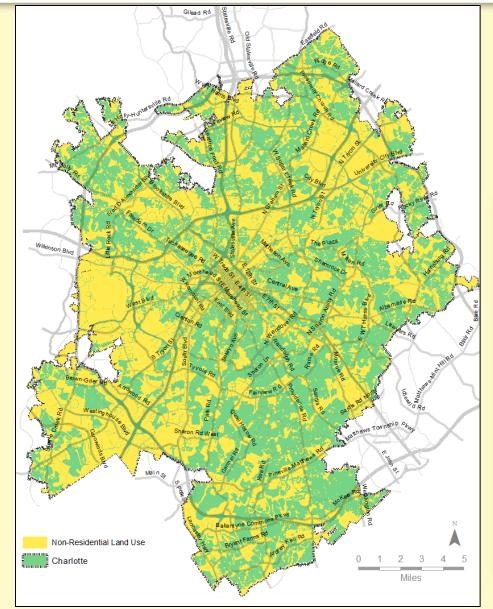








Lots of Room for Small Cell





Existing Poles

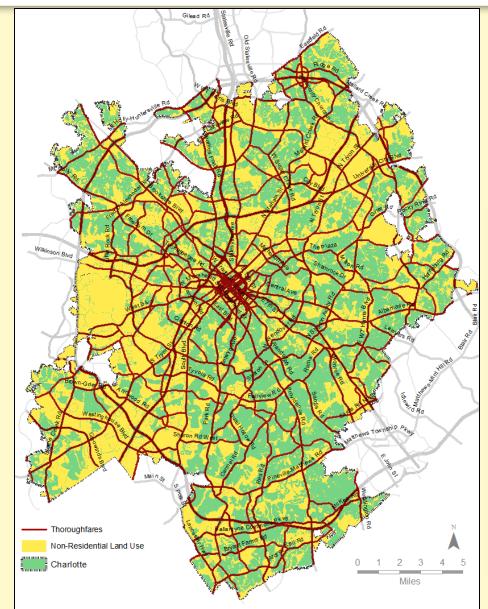


New Poles in Non-Residential





Lots of Room for Small Cell





Existing Poles



New Poles in Non-Residential



New Poles on Thoroughfares





What People Don't Seem to Like

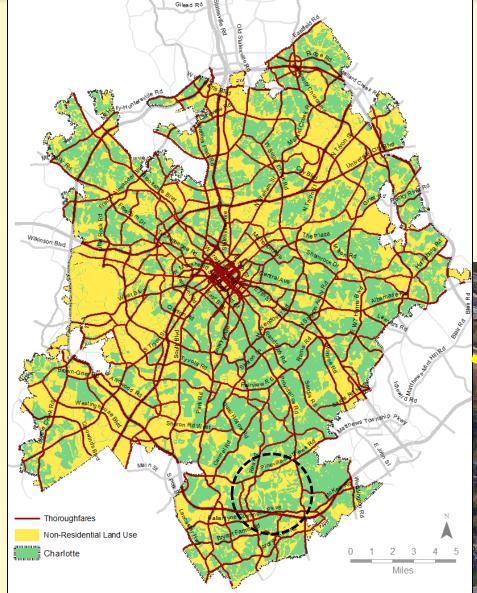
New Poles in Single Family Neighborhoods







Areas of Concern



- Big land areas that are entirely residential
- Far from surrounding thoroughfare network
- All underground utilities
- No streets with reverse-fronting homes.





New Poles in Single Family

Challenges

- Citizens are highly protective of their neighborhood (rightfully!)
- Citizens want the end product, but do not always see need for the supportive infrastructure
- Citizens do not understand the array of Federal, State and Local laws
- Municipalities have limited authority not everyone understands or accepts this
- Technology is changing rapidly



New Poles in Single Family

CDOT's Regulations Seek to Ensure that:

- There are not options available to attach to existing poles, or locate on a nearby thoroughfare, or reverse fronting or nonresidential street.
- Neighborhood is aware of Utility Company's intentions.
- Neighborhood has an opportunity to comment on the proposal.
- Final locations and pole designs minimize visual impact

Also...

- We will not be and no not want to be experts in RF technology or business models for carrier service delivery.
- We will need to continue to partner with utility industry to advance our shared goals of building Charlotte's utility infrastructure.



Thank You!



City of Charlotte Website

Charlottenc.gov

Mike Davis, PE

Charlotte Department of Transportation 704.336.3938

madavis@charlottenc.gov